

REMARKS

Claims 16-27 and 29-31 are pending in this application. By this Amendment, claim 16 is amended and claims 28 and 32-36 are canceled. Support for the amendment is provided, for example, in paragraph [0026] of the specification. No new matter is added. Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

The Office Action rejects claims 28 and 32 under 35 U.S.C. §102(b) over Nam (U.S. Patent No. 5,527,565); rejects claims 16-27 and 29-31 under 35 U.S.C. §103(a) over Standley et al. (WO 01/86035 A1) (Standley) in view of Sato (U.S. Patent No. 6,593,211 B2); and rejects claims 33-36 under 35 U.S.C. §103(a) over Standley in view of Schmolke et al. (U.S. Pub. No. 2002/0022351 A1) (Schmolke). The rejections of canceled claims 28 and 32-36 are moot. Applicant respectfully traverses the rejection of claims 16-27 and 29-31.

Standley does not teach or suggest a method for producing a silicon epitaxial wafer in which a silicon single crystal substrate is separated from a susceptor during the hydrogen heat treatment step, and the silicon single crystal substrate is mounted on a spot face of the susceptor during a vapor phase epitaxy step, as recited in independent claim 16. Standley teaches a wafer support device in which a silicon wafer is elevated above a susceptor 60 by lift pins 61-63 throughout the entire epitaxial deposition process that includes both pre-bake and epitaxial growth. See, e.g., Standley at page 33, line 22 to page 34, line 7. Standley does not teach or suggest a method for producing a silicon epitaxial wafer in which during a hydrogen treatment step a wafer is separated from a susceptor and during a vapor phase epitaxy step the wafer is mounted on a spot face of the susceptor, as recited in claim 16. Applicant submits that the other cited reference, Sato, does not overcome the deficiencies of Standley. Thus, Applicant respectfully submits that claim 16 is patentable over the combination of Standley and Sato. For at least this reason, Applicant respectfully submits

that the rejection of claim 16, and claims 17-27 which depend from claim 16, should be withdrawn.

The Office Action asserts that a cleaning step as recited in independent claim 29, in which a front main surface oxide film formation cleaning for forming an oxide film on a front main surface of a silicon single crystal substrate is performed as final cleaning of the front main surface and rear main surface natural oxide film removal cleaning for removing a natural oxide film formed on a rear main surface of the silicon single crystal substrate is performed as final cleaning of the rear main surface, is taught on pages 17-19, 23, 24 and 26 of Standley. However, Standley teaches the removal of native oxide layers from both of the front and back surfaces of wafers, as shown for example, in Standley on page 19 at lines 10-15 and on page 23 at lines 15-23. Standley does not teach or suggest the cleaning process recited in claim 29, in which (1) a front main surface oxide film formation cleaning for forming an oxide film on a front main surface of a silicon single crystal substrate is performed as final cleaning of the front main surface, and (2) rear main surface natural oxide film removal cleaning for removing a natural oxide film formed on a rear main surface of the silicon single crystal substrate is performed as final cleaning of the rear main surface.

Applicant submits that the other cited reference, Sato, does not overcome the deficiencies of Standley. Thus, claim 29 is patentable over the combination of Standley and Sato. Applicant respectfully submits that the rejection of claim 29, and claims 30 and 31 which depend from claim 29, should be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Robert M. Jackson
Registration No. 46,796

WPB:RMJ/tls

Date: July 3, 2007

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
--